

## **REMARKS**

### **I. Introduction**

By the present Amendment, claims 1, 2, and 11-15 have been amended. Claims 16-20 have been cancelled. Accordingly, claims 1-15 remain pending in the application. Claim 1 is independent.

### **II. Office Action Summary**

In the Office Action of December 14, 2005, claims 1-20 were rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 6,965,866 issued to Klein in view of U.S. Patent No. 6,840,440 issued to Uozumi, et al. ("Uozumi"), and further in view of Japanese Patent No. 09-284038 issued to Otake. These rejections are respectfully traversed.

### **III. Rejections under 35 USC §103**

Regarding claim 1, the Office Action asserts that Klein discloses a portable information device such as a cell phone that includes an RFID that is inherently included in the IC circuit for communicating using a magnetic field, and arranged within a battery compartment of the cell phone. The Office Action further indicates that the RFID is placed on a side of the battery cover which is closer to the reader.

The Office Action admits that Klein does not specifically disclose the type of RFID antenna coil and condensers for resonance in the antenna. Uozumi is relied upon for teaching a specific RFID that has a coil antenna and a plurality of resonance condensers.

The Office Action goes on to admit that the combination of Klein and Uozumi still fails to disclose that the RFID antenna has a magnetic material sheet arranged

between the antenna coil and the battery. Otake is relied upon for teaching a communication device that includes a magnetic material sheet arranged on the rear surface of the loop antenna. The Office Action concludes that it would have been obvious to combine the teachings of Klein, Uozumi, and Otake in order to arrive at the claimed invention for purposes of tuning the frequency as required by the RFID, and enhancing the power signal because the magnetic material sheet would act as a reflector for the communication signal. Applicants respectfully disagree.

At the outset, Applicant would like to point out that a *prima facie* case of obviousness must be made in order to support a rejection under 35 U.S.C. §103. According to the Federal Circuit and the M.P.E.P., a *prima facie* case of obviousness requires that three basic criteria be met. First, there must be some suggestion or motivation in the primary reference to modify, combine, or seek out the teachings of a secondary reference. Second, there must be a realistic expectation of success from combining the two references. Finally, the prior art references must clearly teach or suggest all the claim limitations. See M.P.E.P. §706.02(j). The Federal Circuit has consistently supported the requirements of the M.P.E.P. in stating, for example, that “[i]n proceedings before the Patent and Trademark Office, the Examiner bears the burden of establishing a *prima facie* case of obviousness based upon the prior art.” In re Fritch, 972 F.2d 1260, 23 USPQ 2d 1780 (Fed. Cir. 1992).

In the decision of In re Fine, 5 USPQ 2d 1596 (Fed. Cir. 1988), the court pointed out that the PTO has the burden under '103 to establish a *prima facie* case of obviousness and can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. As

noted by the court, whether a particular combination might be "obvious to try" is not a legitimate test of patentability and obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. As further noted by the court, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

As amended, independent claim 1 defines a portable information device that comprises:

- a case;
  - electronic devices stored in the case;
  - a flattened battery for supplying electric power to the portable information device, said battery being made of a metal material;
  - a battery cover;
  - an antenna coil formed on a substrate;
  - a magnetic material sheet; and
  - an IC and condensers for resonance connected to the antenna coil;
- wherein:
  - the IC intercommunicates with an external apparatus through the antenna coil using a magnetic field,
  - a depression serving as a battery receiving section is formed on a portion of the surface of the case and covered by the battery cover,
  - the battery, the antenna coil, and the magnetic material sheet are stored in the depression,
  - a metal vacuum-evaporation film or a conductive material coating is applied to the case,
  - no metal vacuum-evaporation film or a conductive material coating is applied to the battery cover,
  - the antenna coil is arranged between the battery cover and the battery, and

the magnetic material sheet is arranged between the antenna coil and the battery within the depression.

According to independent claim 1, the portable information device includes a case, various electronic devices, a battery, a battery cover, an antenna coil, a magnetic material sheet, and an IC and condensers. The IC communicates with an external apparatus through the antenna coil using a magnetic field. A depression is formed on a portion of the surface of the case to serve as a battery receiving section. The depression is subsequently covered with the battery cover. The battery, the antenna coil, and the magnetic material sheet are all stored within the depression. According to independent claim 1, a metal vacuum-evaporation or a conductive material coating is applied to the case. This vacuum-evaporation film (or conductive material coating) is not applied to the battery cover. Furthermore, the antenna coil is arranged between the battery cover and the battery, and the magnetic material sheet is arranged between the antenna coil and the battery within the depression.

As discussed in the Specification, at least one problem associated with portable information devices such as cell phones is that the arrangement of the antenna coil inside the case can result in a weak electric signal that affects external communication. Consequently, the communication range is significantly reduced. According to the present invention, the antenna coil is arranged on the side of the battery cover that is not coated with the metal vacuum-evaporation film. According to this arrangement, the EMC requirements of the device can be satisfied and the communication range can be extended. See page 9, line 27 to page 10, line 24. At least one benefit achieved by the arrangement of independent claim 1 is that the battery is used as both a power supply and an EMC shield. Accordingly, it is not necessary in incorporate further components for purposes of addressing the EMC

measures in the device. The antenna coil can then be arranged within the case without any additional EMC components.

The portable information device of independent claim 1 includes various features that are not shown or suggested by the combined references. Furthermore, it appears that the references are being combined through hindsight reconstruction in order to arrive at the claimed invention. More particularly, Applicants' review of the references has not revealed any motivation to combine the references in order to arrive at the claimed invention. Review of the cited references has failed to provide any disclosure or suggestion for certain features recited in independent claim 1. For example, the applied references fail to provide any disclosure or suggestion for:

A metal vacuum-evaporation film or a conductive material coating is applied to the case,

No metal vacuum-evaporation film or conductive material coating is applied to the battery cover.

Furthermore, the Office Action has failed to present a prima facie case of obviousness to sustain the rejection. A skilled artisan presented with the teachings of Klein would simply not be motivated to seek out the teachings of Uozumi, and further seek out the teachings of Otake in order to arrive at the claimed invention. In particular, Applicants note that the applied references appear to be in different fields of endeavor. The only motivation that appears to be present is the limitations recited in the claims themselves. Furthermore, even if such motivation were realistically present, one would still fail to arrive at the claimed invention because the combination of references does not disclose or even suggest every single feature recited in the claimed invention.

It is therefore respectfully submitted that independent claim 1 is allowable over the art of record.

Claims 2-15 depend from independent claim 1, and are therefore believed allowable for at least the reasons set forth above with respect to independent claim 1. In addition, these claims each introduce novel elements that independently render them patentable over the art of record.

#### **IV. Conclusion**


For the reasons stated above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a Notice of Allowance is believed in order, and courteously solicited.

If the Examiner believes that there are any matters which can be resolved by way of either a personal or telephone interview, the Examiner is invited to contact Applicants' undersigned attorney at the number indicated below.

**AUTHORIZATION**

Applicants request any shortage or excess in fees in connection with the filing of this paper, including extension of time fees, and for which no other form of payment is offered, be charged or credited to Deposit Account No. 01-2135 (Case: 520.42854X00).

Respectfully submitted,  
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